UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,389	11/03/2005	Jon Owen Curwen	056291-5213	9420

9629 7590 04/29/2009

MORGAN LEWIS & BOCKIUS LLP
1111 PENNSYLVANIA AVENUE NW
WASHINGTON, DC 20004

EXAMINER	
STONE, CHRISTOPHER R	
ART UNIT	PAPER NUMBER
1614	
MAIL DATE	DELIVERY MODE
04/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/555,389	CURWEN ET AL.	
	Examiner	Art Unit	
	CHRISTOPHER R. STONE	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 January 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-16,18 and 23-27* is/are pending in the application.

4a) Of the above claim(s) *14-16* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13, 18 and 23-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicants' arguments, filed October 14, 2008, and the declaration, filed January 23, 2009, have been fully considered but they are not deemed to be persuasive. Rejections and/or objections not reiterated from previous office actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

Status of Claims

Claims 13-16, 18 and 23-27 are pending. Claims 14-16 are withdrawn from further consideration. 4-(4- fluoro-2-methylindol-5-yloxy)-6-methoxy-7-(3-piperidinopropoxy)quinazoline, 7-[2-(4-acetylpiperazin-1-yl) ethoxy]-4-(6-chloro-2,3-methylenedioxyanilino)-5-isopropoxyquinazoline and lung cancer are the elected species of compounds and cancer currently under examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 13, 18 and 23-27 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for providing an anti-cancer effect in a mouse with a human lung cancer xenograft, does not reasonably provide enablement for providing an anti-cancer effect in other warm-blooded mammals with lung cancer,

e.g. humans. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

Claims 13, 18 and 23-27 are drawn to a method of providing an anti-cancer effect in a warm blooded mammal with lung cancer, comprising administering 4-(4- fluoro-2-methylindol-5-yloxy)-6-methoxy-7-(3-piperidinopropoxy)quinazoline, and 7-[2-(4-acetylpiperazin-1-yl) ethoxy]-4-(6-chloro-2,3-methylenedioxyanilino)-5-isopropoxyquinazoline. The prior art indicates that lung cancer is difficult to treat. For instance, squamous cell lung cancer and adenocarcinoma of the lung are highly resistant to chemotherapy (see Oxford Textbook of Oncology, p. 451, Table 3). This indicates a lack of predictability in the art with regard to the treatment of lung cancer. Furthermore, the Applicant has provided no working examples demonstrating the efficacy of this treatment on any other lung cancer in any other subject, other than in a mouse with a single human lung cancer xenograft. One of ordinary skill in the art would not expect a reasonable correlation between anti-cancer activity in a mouse with a single human lung cancer xenograft and anti-cancer activity in other mammals, e.g. humans, since the prior art teaches that no significant correlation between preclinical activity in a single human xenograft model of a particular cancer type (as opposed to multiple human xenografts of the same tumor type, i.e. panels) and clinical activity in humans is observed (Voskoglou-Nomikos et al, Clinical Cancer Research, Vol. 9, p. 4227-4239, 2003, especially p. 4232, left column, 2nd full paragraph). Additionally, Applicant's data on pages 54 and 55 of the instant application only demonstrate the

normotensive effect of the treatment. For these reasons, it would take undue experimentation by one of ordinary skill in the art to use this method to treat lung cancer, other than in a mouse with a single human lung cancer xenograft, with a reasonable expectation of success.

Response to Amendment

Applicant's arguments and the declaration under 37 CFR 1.132 filed October 14, 2008 and January 23, 2009 are insufficient to overcome the rejection of claims 13, 18 and 23-27. Applicant's arguments and the declaration under 37 CFR 1.132 attempt to provide support for the enablement of the treatment of lung cancer comprising administering 4-(4- fluoro-2-methylindol-5-yloxy)-6-methoxy-7-(3-piperidinopropoxy)quinazoline, and 7-[2-(4-acetylpiperazin-1-yl) ethoxy]-4-(6-chloro-2,3-methylenedioxyanilino)-5-isopropoxyquinazoline by demonstrating the anti-cancer effect of the compounds on human CaLu-6 lung cancer xenograft tumors in mice. As noted above, one of ordinary skill in the art would not expect a reasonable correlation between anti-cancer activity in a mouse with a single human lung cancer xenograft and anti-cancer activity in other mammals, e.g. humans, since the prior art teaches that no significant correlation between preclinical activity in a single human xenograft (i.e. CaLu-6) of a particular cancer type (as opposed to multiple human xenografts of the same tumor type, i.e. panels) and clinical activity in humans is observed (Voskoglou-Nomikos et al, Clinical Cancer Research, Vol. 9, p. 4227-4239, 2003, especially p. 4232, left column, 2nd full paragraph).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER R. STONE whose telephone number is (571)270-3494. The examiner can normally be reached on Monday-Thursday, 7:30am-4:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin H. Marschel can be reached on (571) 272-0718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

20April2009
CRS

/Patricia A. Duffy/
Primary Examiner, Art Unit 1645